

May 2011

Title: Merced River and Riparian Vegetation Assessment

Executive Summary:

The purposes of the study were: 1) to evaluate and determine current condition of Merced River and riparian corridor as it flows through Yosemite National Park (a 16 kilometer [km] study reach), 2) to describe changes to the riparian corridor and river channel that have occurred since 1987 when this reach of the Merced River was designated as Wild and Scenic under the Wild and Scenic Rivers Act, and 3) to develop and suggest metrics that describe riparian and river condition, which would be used to monitor future trends and to develop natural resource management objectives within the park. The study relied on recent (summer, fall, and winter 2010) field surveys to describe riparian vegetation and the riparian corridor, channel processes and floodplain connection, large woody debris (LWD) dynamics and function within the river channel, and wildlife habitat. The study occurred from the Happy Isles Bridge to approximately 1 km downstream of the Pohono Bridge near the intersection of Big Oak Flat and El Portal roads. To evaluate discrete sections of river and riparian corridor, the 16 km study reach was divided into eight geomorphic reaches based upon channel gradient and sinuosity, entrenchment, bankfull width, and valley width. Beginning upstream, these geomorphic reaches were: Happy Isles, Above Tenaya, Below Tenaya, Upper Meadows, Inter-Meadows, Lower Meadows, Above Pohono Bridge, and Below Pohono Bridge.